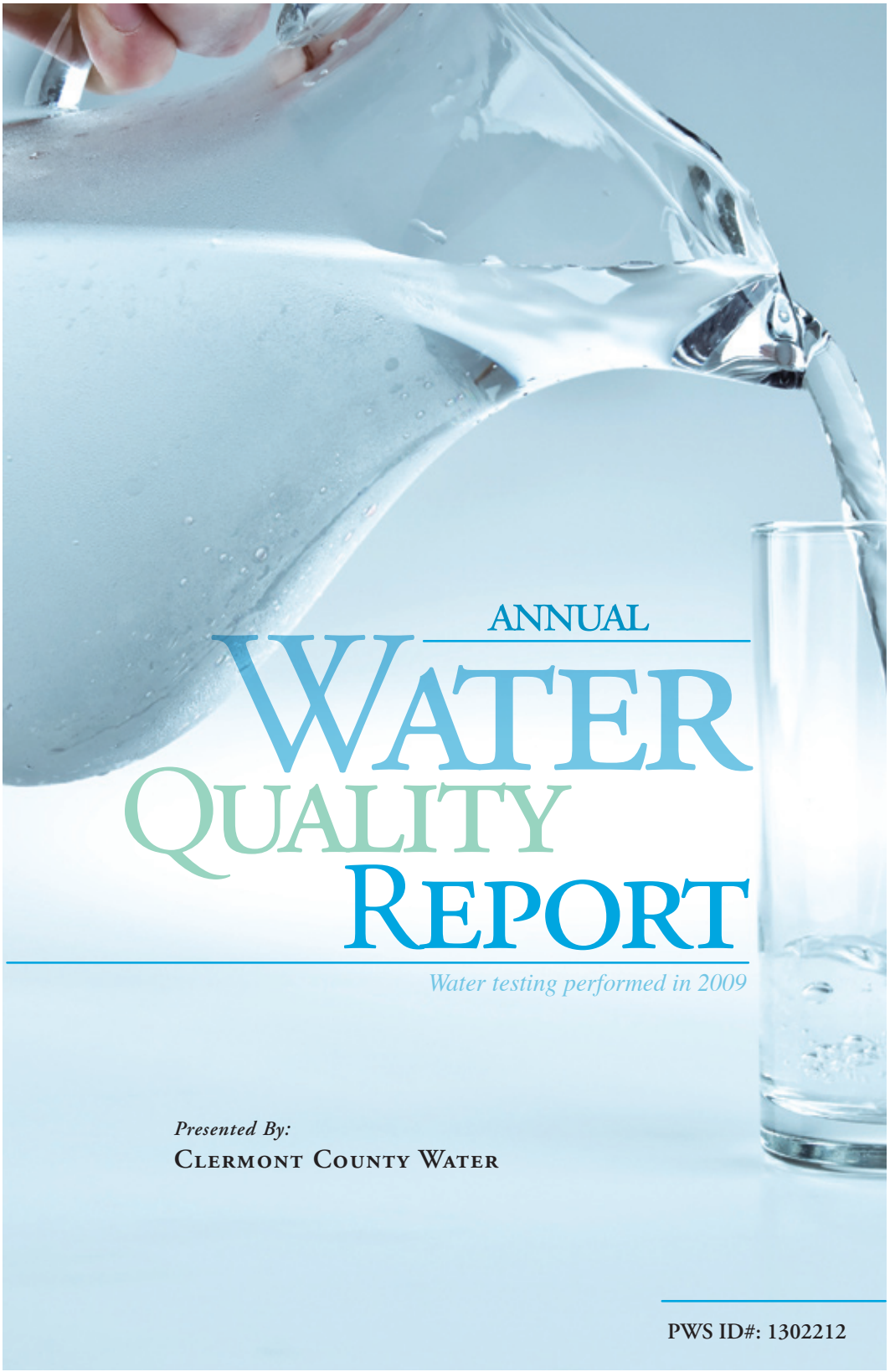

ANNUAL WATER QUALITY REPORT

Water testing performed in 2009

Presented By:

CLERMONT COUNTY WATER

PWS ID#: 1302212

Introduction

This brochure is a summary of the quality of the water we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) standards. We are providing you with the information because we want you to be informed. We know that you count on us for a safe and reliable supply of water every day, and we are dedicated to providing the highest quality of service to you. If this report was mailed to you as owner of a property whose occupants drink Clermont County Water, please forward it to those residents.

Source Water Description

The Clermont County Water System operates three water treatment plants that pump into a common distribution system of pipes serving our customers.

The MGS plant, located near Miamiville, draws from wells in the Little Miami River Aquifer. In 2004, the Ohio EPA performed a source water assessment for the MGS wellfield and designated it as highly susceptible to contamination. This is based in part on the geology of the aquifer, which is shallow and has little or no impermeable materials atop it. Another factor is the presence of potential sources of pollution in the area. The EPA also notes the presence of nitrates in the water, which suggests manmade influence in the aquifer. However, the water continues to meet drinking water standards.

The PUB plant is near New Palestine, where its wells draw from the Ohio River Valley Aquifer. A draft susceptibility analysis from the Ohio EPA has determined that this aquifer has a high susceptibility for contamination, based on a relatively thin layer of low-permeability material overlying the aquifer and the relatively shallow depth of the aquifer. Potential pollution sources in the area and a possible hydraulic connection to the Ohio River also contribute to this assessment. However, the EPA agrees that there is no evidence of existing chemical contaminants. These wellfields are monitored for contamination and cared for under the Wellhead Protection Plan. Persons who wish to learn more may call Mark Day at 513-732-7945.

The Bob McEwen Water Treatment Plant (BMW) is located near Batavia and draws surface water from Harsha Lake, which was created by constructing a dam across the East Fork Little Miami River. Surface water is more susceptible to contamination than ground water, so extensive testing of the raw water is conducted frequently. Chemical and bacteriological testing, as well as evaluation of the biological organisms living upstream of the lake, are used to determine raw water quality and identify areas of concern. The Ohio EPA completed a source water assessment for BMW in 2004. The protection area around Harsha Lake and the upstream portions of the East Fork Little Miami River include a number of commercial and industrial facilities, but the greater concern is runoff from agricultural fields, the potential for spills at road and rail crossings, and residential septic systems in the watershed. Persons who wish to learn more may contact Eric Heiser at 513-732-5386. Additional information on the watershed collected by Clermont County is available from the Office of Environmental Quality (OEQ) at 513-732-7894 or the Web site http://www.oeq.net. After treatment, which includes Granular Activated Carbon filtration, water from the lake meets all required drinking water standards.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

Public Meetings

The Clermont County Board of County Commissioners owns and operates the Clermont County Water System. Information relative to meeting dates and times can be found by visiting the County Web Site, www.co.clermont.oh.us, or by calling 513-732-7300.

Questions?

Questions about the water system, which has been in operation since 1955, may be directed to Mark Day at 513-732-7945.

Measuring Drinking Water Quality

Clermont County Water System ensures that your water is safe through regular monitoring and testing of water quality. Our own, as well as other, independent state-certified testing laboratories conduct these tests. This report shows a comprehensive summary of the laboratory test results for the contaminants we have detected in the drinking water in the most recent testing done in accordance with the drinking water regulations. Responsibility for maintaining water quality resides with our staff of certified water treatment plant operators, licensed by the Ohio Environmental Protection Agency (OEPA). Clermont County has a current, unconditional license to operate our water system from the OEPA.

The Safe Drinking Water Act directs the state, along with the Environmental Protection Agency (EPA), to establish and enforce minimum drinking water standards. These standards set sampling frequency and concentration limits on certain biological, radioactive, organic, and inorganic substances sometimes found in drinking water. The limits are called Maximum Contaminant Levels or MCLs.

The Maximum Contaminant Levels (MCLs) are set to prevent health problems for people throughout their lifetime. Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water Hardness

Water hardness is not regulated and does not appear on the table. Each of our three water treatment plants produces waters of differing hardness, which mix in the common piping system. In general, if you live in Pierce or Union Township, you receive water with a hardness of 11 grains per gallon (180 ppm). In Batavia, Stonelick, and Goshen Townships, the water has 7 grains per gallon (120 ppm) of hardness. In Miami Township, blending of these two waters is possible, but the softer water is more likely. In northern Miami Township, hardness varies from 7 grains per gallon in the winter (October through April) to 14 grains per gallon (240 ppm) in summer (May through September).

Lead and Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Lead and copper testing was conducted in 2008 by Clermont County Water in 52 older homes which were identified as being at risk for having higher levels of these contaminants. Some samples contained copper (and in one case lead) in the water that had sat in those homes' water lines overnight, but all were at concentrations below the "action levels" set by the EPA.

About Our Violation

In 2009, Clermont County Water was required to post a public notification for a drinking water violation. On January 5, 2006, the United States Environmental Protection Agency (U.S. EPA) promulgated the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), which required Clermont County to monitor the source of your drinking water for *Cryptosporidium*, a protozoan organism. The results of the monitoring are to be used to determine if the treatment process at the Bob McEwen Water Treatment Plant requires modification to adequately treat the water for *Cryptosporidium*. We were required to complete this monitoring and make this determination by April 1, 2012. On June 21, 2006, Clermont County executed a contract with a consultant to provide necessary services relative to compliance with this rule and sampling commenced in October 2006.

Monitoring and testing were conducted on schedule from October 2006 through 2008. All samples analyzed were negative for *Cryptosporidium*. However, the consultant failed to arrange for a required quality control spike for *Cryptosporidium* as required by the rule. Subsequently the data collected from June through September 2008 was deemed invalid and Clermont County Water in violation of the regulatory requirements. A new set of samples was collected and analyzed from June 2009 through September 2009 to complete requirements and meet the program deadlines. No *Cryptosporidium* was detected.

Data Sheet and Supplemental Information

The following tables summarize the drinking water quality testing conducted in 2009. The tables list regulated contaminants that were found in the drinking water with their regulatory limits (MCLs, ALs, TTs).

Tests were conducted for many other contaminants, which were not detected, and therefore are not included in the table. For example, no *Cryptosporidium* was detected in tests analyzed by an outside lab on water from our lake intake. If you want to know if we have tested for a particular substance, please call us.

The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently (lead and copper for example). In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2009	[4]	[4]	0.89	0.1–2.2	No	Water additive used to control microbes
Fluoride (ppm)	2009	4	4	1.59	0.32–1.59	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2009	60	NA	39	6–71	No	By-product of drinking water disinfection
Nitrate (ppm)	2009	10	10	1.67	0.2–1.67	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2009	80	NA	45	4–120	No	By-product of drinking water chlorination
Total Organic Carbon [TOC][1] (ppm)	2009	TT	NA	1.39	1.26–1.63	No	Naturally present in the environment
Turbidity[2] (NTU)	2009	TT	NA	0.356	0.035–0.356	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2009	TT	NA	99.99	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community (lead was not detected at the 90th percentile)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	1.3	0.381	0/52	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

INITIAL DISTRIBUTION SYSTEM EVALUATION[3]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Haloacetic Acids [HAA]–IDSE Results (ppb)	2009	40.2	6.2–53.3	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–IDSE Results (ppb)	2009	67	2.6–95.2	By-product of drinking water disinfection

[1] The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.

[2] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

[3] Under the Stage 2 Disinfectants/Disinfection By-products Rule (D/DBPR), our public water system was required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system with elevated disinfection by-product concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR, beginning in 2012. Disinfection by-products are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection by-products are grouped into two categories: Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). The U.S. EPA sets standards for controlling the levels of disinfectants and disinfectant by-products in drinking water, including both TTHMs and HAA5s.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Amount Detected: Amount Detected is the worst case number derived from our testing data that is directly comparable with the requirement (MCL or AL or TT).

MCL (Maximum Contaminant Level): The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant below which there is no known or expected health risk.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

Range (Low-High): Range (Low-High) is the lowest and highest test values of individual sample results from all tests taken for the 2009 compliance year.

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Typical Sources: Typical Sources are likely causes of contamination.

Violation: Violation is a comparison of the Amount Detected with the regulatory requirement. If the Amount Detected is greater than the MCL or AL or does not meet the requirement of the TT, it is a violation.